COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Tidewater Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Conectiv Delmarva Generation, Inc.
Bayview Peaking Station (Cheriton), Virginia
Permit No. TRO-40602

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Conectiv Delmarva Generation, Inc. has applied for a Title V Operating Permit for its Bayview Peaking Station (Cheriton), Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date: July 5, 2006
Kelly M. Ryan
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Air Permit Manager:_____ Date: July 5, 2006
Jane A. Workman

Regional Director:_____ Date: July 5, 2006
Francis L. Daniel

FACILITY INFORMATION

Permittee
Conectiv Delmarva Generation, Inc.
800 King Street, PO Box 231
Wilmington, DE 19899-0231

Facility
Bayview Peaking Station (Cheriton)
Route 684 (South of Route 641)
Bayview, Northampton County

County-Plant Identification Number: 51-131-00008

SOURCE DESCRIPTION

NAICS Code: 221112 – Electric Power Generation

Conectiv Delmarva Generation, Inc.'s Bayview Peaking Station comprises six (6) internal combustion engines for peak electric power generation, each rated at 21 million BTU per hour heat input capacity (two (2) megawatts (MW) each, nominal), two (2) 50,000 gallon #2 distillate fuel oil storage tanks, six (6) 120 gallon distillate fuel oil engine day tanks, six (6) 380 gallon lubricating oil storage tanks, and one (1) engine generator set for emergency backup power to operate telecommunications equipment.

Five (5) internal combustion (I.C.) engine generator sets were installed in 1963, and are existing equipment, having been installed before, and not modified since, the state's existing source rule effective March 17, 1972. Unit #6, a used I.C. engine generator set, was installed in the Bayview facility in 1976, and not modified since the Chapter 50, Article 4, rule effectiveness date of August 3, 1979, Standards of Performance for New and Modified Stationary Sources, and PSD rules effective April 3, 1981. The facility was exempt based on size (each engines rated capacity was less than 3000 hp) from new source review (NSR) requirements dated March 17, 1972, as amended August 11, 1972, February 3, 1974, December 20, 1974, and August 9, 1975. The facility could provide backup prime power if required. All six (6) units were rebuilt with new turbochargers before 1996. No operational changes have been made which would require NSR, and all physical changes have been either routine repairs or changes to improve combustion and reduce opacity. Thus, the six (6) units are not considered to have been modified since originally installed.

A generator is connected to its diesel engine several minutes after startup. As the unit is brought up to operating load, the turbocharger engages, and opacity goes from a 10-15 percent range to about 5 percent. Opacity varies with load, but 5 percent is normally achieved at maximum steady-state load.

The facility is a Title V major source of NO_x, SO_2, PM_{10} and CO. This source is located in a marginal non-attainment area for NO_x.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Manufacturer and Date of Construction
BV10	ST10	Internal Combustion (I.C.) Engine Generator Set No. 1	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. October 1963.
BV20	ST20	Internal Combustion (I.C.) Engine Generator Set No. 2	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. October 1963.
BV30	ST30	Internal Combustion (I.C.) Engine Generator Set No. 3	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. October 1963.
BV40	ST40	Internal Combustion (I.C.) Engine Generator Set No. 4	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. October 1963.
BV50	ST50	Internal Combustion (I.C.) Engine Generator Set No. 5	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. October 1963.
BV60	ST60	Internal Combustion (I.C.) Engine Generator Set No. 6	21.0 MMBTU/hr nominal (2 MW nominal output)	General Motors (GM)/MP-36. 1976.

EMISSIONS INVENTORY

A copy of the 2004 annual emission update is attached. Emissions are summarized in the following tables.

2004 Criteria Pollutant Emission in Tons/Year					
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
BV10	1.0	3.0	0.9	1.0	14.0
BV20	1.0	3.0	0.9	1.0	13.9
BV30	0.8	2.7	0.8	0.9	12.2
BV40	1.0	3.0	0.9	1.0	13.9
BV50	1.0	3.0	0.9	1.0	13.9
BV60	0.9	2.9	0.9	0.9	13.2
Total	5.7	17.6	5.3	5.8	81.1

EMISSION UNIT APPLICABLE REQUIREMENTS – I.C. Engine Generators (BV10-BV60)

Limitations

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110	Federal Operating Permits for Stationary Sources – Permit Content
9 VAC 5-50-80	New and Modified Stationary Sources - Standards of Performance for Visible Emissions and Fugitive Dust/Emissions (applicable to BV60)
9 VAC 5-40-80	Existing Stationary Sources - Standard for Visible Emissions

Monitoring

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-100	Existing Stationary Sources - Standard for Visible Emissions and Fugitive Dust/Emissions - Monitoring
9 VAC 5-50-100	New and Modified Stationary Sources – Standards of Performance for Visible Emissions and Fugitive Dust/Emissions - Monitoring
9 VAC 5-40-110	Existing Stationary Sources - Standard for Visible Emissions and Fugitive Dust/Emissions – Test methods and procedures
9 VAC 5-80-110	Federal Operating Permits for Stationary Sources – Permit Content

Recordkeeping

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-50	New and Modified Stationary Sources – Notification, Records and Reporting
9 VAC 5-40-50	Existing Stationary Sources – Notification, Records and Reporting
9 VAC 5-80-110	Federal Operating Permits for Stationary Sources – Permit Content

Testing

The permit does not require source tests. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

The source is limited by Condition III.A.1 to low sulfur distillate oil, with less than 0.5% sulfur content. Hourly emission limit is based on 2.64% sulfur. At maximum heat input, SO2 emissions will be less than 19% of the permit limit.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

This general condition cite(s) the Article(s) that follow(s):
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:
9 VAC 5-80-80. Application
9 VAC 5-80-140. Permit Shield
9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

This general condition cites the sections that follow:
9 VAC 5-40-41. Emissions Monitoring Procedures for Existing Sources
9 VAC 5-40-50. Notification, Records and Reporting
9 VAC 5-50-50. Notification, Records and Reporting

J. Permit Modification

This general condition cites the sections that follow:
9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
9 VAC 5-80-190. Changes to Permits.
9 VAC 5-80-260. Enforcement.
9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:
9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction
9 VAC 5-80-110. Permit Content

INAPPLICABLE REQUIREMENTS

NSPS Subpart Kb
Federal New Source Performance Standards (NSPS), Subpart Kb, does not apply to fuel oil storage tanks BV100, BV101 and day tanks BV110-BV115 were installed prior to the 1984 applicability date. Tanks BV120-BV125 are exempt from this standard based on size.

9 VAC 5 Chapter 40, Article 4 – Emission Standards for General Process Operations
Article 4 of Chapter 40 of the state regulations does not apply to internal combustion engines BV10-BV60 because they do not meet the definition of process equipment (i.e. furnaces, ovens, and kilns) that the rule was intended to cover.

9 VAC 5 Chapter 40, Article 4 - Emission Standards for General Process Operations
Fuel oil storage tanks BV100, BV101, and BV110-BV115 doe not have opacity monitoring requirements, although the existing source rule regulating these units indicates an opacity requirement. This is justified by comparing state requirements with NSPS Subpart Kb. This NSPS does not require an opacity limit and monitoring, so it was determined that a visible emissions standard and evaluation are not necessary in this case.

9 VAC Chapter 40, Article 8 – Emissions Standards for Fuel Burning Equipment
This fuel burning emissions unit regulation does not apply to emissions units BV10-BV60 because IC engines are excluded from its definition of “fuel burning equipment”.

9 VAC 5 Chapter 40, Article 37 – Emission Standards for Petroleum Liquid Storage and Transfer Operations
This regulation does not apply to storage tanks BV100, BV101, BV110-BV115, and BV120-BV125 because the vapor pressures of fuel oil and lubrication oil are below the article’s applicability threshold of 1.5 psia for liquids in service by a storage tank.

9 VAC 5 Chapter 50, Article 4 – Standards of Performance for New and Modified Stationary Sources
This regulation does not apply to existing emissions units (BV10-BV50) nor to new emissions unit BV60, because they were installed before, and not modified after the rule’s effectiveness date of August 3, 1979.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
BV100 and BV101	Two (2) #2 Fuel Oil Storage Tanks	5-80-720 B.2	VOC	50,000 gal. (installed prior to 1984)
BV110–BV115	Six (6) #2 Fuel Oil Storage Tanks	5-80-720 B.2	VOC	120 gal. each
BV120–BV125	Six (6) Lube Oil Storage Tanks	5-80-720 B.2	N/A	380 gal. each
BV200	One (1) Emergency Generator	5-80-720 C.4	PM_{10}, SO_2, NO_x, CO, VOC	<1 mmBTU/hr heat input

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be place on public notice in the Eastern Shore News from Saturday, May 13, 2006 to Monday, June 12, 2006.